

	10	20	30	40	50	60	70	80	90	100	110	120
At KAS1.pro	IS	---	A	---	SASTVSAPKRETDPK	---	KRWITGMLVSVCGNDVDAYYEKLLSGESGISLIDR	---	FDASKFPTRFGQIRG	---	FSSEGY-IDCK	81
Br Kas 50.pro	---	A	---	---	SSSAVSA PKRETDPK	---	KRWITGMLVSVCGNDVDAYYEKLLSGESGISLIDR	---	FDASKFPTRFGQIRG	---	FSSEGY-IDCK	79
Ch KAS 1 .pro	---	---	---	---	SSTAVAAALELVDPPGCRNSARA	---	---	---	---	---	---	24
Ch KAS1-1.pro	KL	---	TLTKGNKS	---	WSSTXVAAALELVDPPGCRNSARAGMLSVFGSDVDSYYEKLSSGESGISLIDR	---	---	---	FDASKFPTRFGQIRG	---	FNAICY-IDCK	91
Cpu KAS 1.pro	KA	---	A	---	SPTVSAPKRETDPK	---	KRWITGMLVSVFGSDVDAYYDKLLSGFSGIPIDR	---	FDASKFPTRFGQIRG	---	FNSMAY-IDCK	80
cpuKAS1-1.pro	RA	---	A	---	TASAPKRESDPK	---	KRWITGMLVSVFGSDVDAYYDKLLSGESGISLIDR	---	FDASKFPTRFGQIRG	---	FNAICY-IDCK	78
Hv Kas12.pro	---	---	---	---	TSAAPQRETDPR	---	KRWITGMLVSVFGSDVDYTFYDRLLAGSGVGPIDR	---	FDASSFPTRFGQIRG	---	FSSSEY-IDCK	75
RcKas50.pro	NN	---	NTTISAPKREKDPK	---	KRWITGMLVSVFGSDVDYTFYDKLLAGSGISLIDR	---	---	---	FDASKFPTRFGQIRG	---	FNSQCY-IDCK	79
Cc Kas.pro	KK	---	KRETDPK	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	---	---	FDASSYTVRFAGQIRD	---	FSSEGY-IDCK	70
Ch KAS IV 1.pro	KK	---	K	---	PSIKQ	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
Ch KASIV.pro	NK	---	K	---	PATKQ	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
Cpu KASIV.pro	KK	---	K	---	PSIKQ	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
Cw KASA 1.pro	KK	---	K	---	PVIKQ	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
Cw Kasa 2.pro	KK	---	K	---	PVIKQ	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
Hv KasORE22 (KAS	IA	KK	---	R	PVKQ	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
Hv KasORE25 (KAS	IA	NN	---	K	SETKQ	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
RcKas46.pro	NK	---	K	---	PLMKQ	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
Ce.KAS.PRO	MK	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
CEM.pro	MS	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
Ec KAS 11.pro	---	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
Ec KasI.pro	M	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
M.tub. KasA.pro	MSQP	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
M.tub. KasB.PRO	MVP	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
Rat. Kas.PRO	MD	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
RtNode.pro	---	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
StrepPolyk.pro	VN	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
SYN KAS.pro	---	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71
V.pro	---	---	---	---	---	---	KRWITGMLVSVFGSDIDNFYNNKLLGSGISLIDR	---	FDASSYTVRFAGQIRD	---	FSTDGW-VAPK	71

	130	140	150	160	170	180	190	200	210	220	230	240
	NSRRDDFMRYCIVAGKKALEDAGLGE--D-LSEL----	DKERAGVLIG--SGMGGLKVFSDGVQALIEKG--	YRKISPFVFPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNY						
At KAS1.pro	NEERLDDCLKYCIVAGKKALESANLGG--DKLNTI----	DKRKAGVIVG--TGMGGLTVFSDGVQNLIEKG--	HRKISPFVFPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNY	187					
Br Kas 50.pro	NEERLDDCLKYCIVAGKKALESANLGG--DKLNTI----	DKQKAGVIVG--TGMGGLTVFSDGVQALIEKG--	HRKISPFVFPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNY	185					
Ch KAS 1 .pro	-----DLGA--DRLSKI----	DKERAGVIVG--TGMGGLTVFSDGVQSLIEKG--	HRKITPFFIPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNY	106					
Ch KAS1 1.pro	NDRLDDCLRYCIVAGKKALENSDLGG--ESLSKI----	DKERAGVIVG--TGMGGLTVFSDGVQNLIEKG--	HRKISPFVFPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNY	197					
Cpu KAS 1 .PRO	NDRLDDCLRYCIVAGKKSLEADLGA--DRLSKI----	DKERAGVIVG--TGMGGLTVFSDGVQSLIEKG--	HRKITPFFIPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNY	184					
cpuKAS1 1.PRO	NDRLDDCLRYCIVAGKKALEDADLAG--QSLSKI----	DKERAGVIVG--TGMGGLTVFSDGVQSLIEKG--	HRKISPFVFPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNY	184					
Hv Kas12.pro	NDRLDDCLRYCIVAGKKALESAGLGCSDAHVGL--DKLSKI----	DVGRAGVIVG--TGMGGLSVFSDGVQNLIEKG--	YRKISPFVFPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNY	183					
ReKas50.pro	NDRLDDCLRYCIVAGKKALEHADLGG--DKLSKI----	DKERAGVIVG--TGMGGLTVFSDGVQALIEKG--	HRKITPFFIPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNY	185					
Cc Kas.pro	NDRLDDCWRYCLVAGKKALEDANLGG--QVLDTM----	DKTRIGVIVG--SSMGSKVFADAVEALVQRG--	YKKINPFFIPYAITNMGSA	LAI	IDLGLMGPTYS	ISTACATANY	176					
Ch KAS IV-1.pro	ISKRMDKFMILYMLTAGKKALADAGLGE--DLMKEL----	DKRKQSVLIG--SAMGGMKVFNDIAEAL--RIS--	YKKINPFFIPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNF	176					
Ch KASIV.pro	FSEKMDKFMILYMLTAGKKALADAGLGE--DAMKEL----	NKRKCGVLIG--SGLGGMKVFSDSIEAL--RTS--	YKKISPFVFPSTNMGSA	LAI	IDLGLMGPNYS	ISTACATSNF	176					
Cpu KASIV.pro	ISKRMDKFMILYMLTAGKKALADAGLGE--DVMKEL----	DKRKCGVLIG--SAMGGMKVFNDIAEAL--RIS--	YKKINPFFIPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNF	176					
Cw KASA 1.pro	ISKRMDKFMILYMLTAGKKALADAGLGE--DVMKEL----	DKRKCGVLIG--SAMGGMKVFNDIAEAL--RVS--	YKKINPFFIPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNF	176					
Cw Kasa 2.pro	ISKRMDKFMILYMLTAGKKALADAGLGE--DVMKEL----	DKRKQSVLIG--SMMGSKLFDNSIEAL--RIS--	YKKINPFFIPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNF	176					
Hv KasORF22 (KAS	ISKRMDKFMILYMLTAGKKALADAGLGE--DVMKEL----	DKRKQSVLIG--SAMGGMKVFNDIAEAL--RVS--	YKKINPFFIPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNF	176					
Hv KasORF25 (KAS	ISKRMDKFMILYMLTAGKKALADAGLGE--DVMKEL----	DKRKQSVLIG--SAMGGMKVFNDIAEAL--RVS--	YKKINPFFIPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNF	176					
ReKas46.pro	ISKRMDKFMILYMLTAGKKALADAGLGE--DVMKEL----	DKRKQSVLIG--SAMGGMKVFNDIAEAL--RVS--	YKKINPFFIPYAITNMGSA	LAI	IDLGLMGPNYS	ISTACATSNF	176					
Ce.KAS.PRO	EE-----ALKQAKAEDVDHNETLVN-----	IG-ETAKQVSE-----	QGS-----	HRVSPYFVPRILNNL	PAGVYAMKYKMGQGVSE	STACATSNY	169					
CEM.pro	DEKTSFIFKLALRTTYEALHNAGLLNPNDITINTSLNLDHFGLIG--	SGIGSIQDIYQTSIQFHNDN-----	KKINPYFVFPKILTNMAAGNVSIKFNIRGLSHSVSTACATSNY	192								
Ec KAS 11.pro	EQRKMDAFIQYGVAGVQAMQDSGLIE-----	ITEE-----	NATRIGAAIG--SGIGGLGLEENHTSLMNGG-----	PRKISPFVFPSTIVNMVAGHLTIMYGLRGPSISIACTSGVH	169							
Ec KAS1.pro	VVPFMSDASIYAFLSMEQALADAGLSPEA-----	YQ-----	NNPRVGLIAG--SQGG-----	SPRFQVFGADAMRGPR--	GLKAVGPYVVTKAMASGVSA	CLATPPKIHGVNYSISSACATSAH	168					
M.tub.KasA.pro	DMKRMSTVQRMKLLGGQLWESAG-----	SPEV-----	DPDRFAVVVG--TGLOGAERIVESYDLMMNAGP-----	RKVSPLAVQMIIMPNGAAA	AVIGLQLGARAGVMTIPVSA	SSGSE	176					
M.tub.KasB.PRO	ELKRMGYLQRMSTVLSRKLWENAG-----	SPEV-----	DTNKLMSVLG--TGLOGAEEELVFSYDDMRKGM-----	KAVSPLTVQKYMIMPNGAAA	AVIGLQLGARAGVMTIPVSA	CASGAE	196					
Rat. Kas.PRO	QAHTMDPQLRLILLEVSYEALVDGGINPASLR-----	SCDEQ-----	NAHPRGAAMG--LGGPMDTTEETYSILLDGVTRARIFTAPKG-----	YSMVGCQRAMMANRLLSFFDFDKGPSIALDTACSSLL	175							
RtNode.pro	QIVSMDRFSLAVTAAATEAMKQAGL-----	SCDEQ-----	NAHPRGAAMG--LGGPMDTTEETYSILLDGVTRARIFTAPKG-----	YSMVGCQRAMMANRLLSFFDFDKGPSIALDTACSSLL	175							
StropPolyk.pro	QAPRI.DRAGQFAIVAGQFALADSGI-----	RIDED-----	SAHRVGVCVG--TAVGCTQKLESEY--	VALSAGAHWVD	PGRSPPELYDFVFPSSIA	AFVAMLAGAFGPVNI	VSAGTSGID	174				
SYN KAS.pro	EAKRMDRECHFAVCASQALINDAKLV-----	INEL-----	NADGIGVLIG--TGIGGLKVLEDDQQTILLDKG-----	PSKUSPMLPMMIANMASGLITAIN	LGA	KGPNNITVITAC	AAGSN	172				
V.pro	DX.PKMDIFIQYGIATAAEQALITDSGLIE-----	ITEQ-----	NATRIGTAIG--SGIGGLGLEENHTSLMNGG-----	HRVSPYFVPRILNNL	PAGVYAMKYKMGQGVSE	STACATSNY	197					

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	250	260	270	280	290	300	310	320	330	340	350	360																																																																																																	
At KAS1.pro	CIGNAANH	IRRG	AD	ML	AGG	SEAA	I	P	I	G	L	G	G	F	V	A	C	R	A	L	S	Q	R	-	N	D	D	P	K	A	S	R	P	W	D	K	R	D	G	F	V	M	G	E	G	A	G	V	I	V	E	I	E	H	A	K	K	R	G	A	P	I	A	E	Y	L	G	G	A	F	T	D	A	Y	H	M	T	D	P	R	-	A	D	G	L	G	V	S	S	C	I	E	S	A															
Br Kas 50.pro	CFYAAANH	HR	GE	AD	ML	AG	G	T	E	A	A	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	D	D	P	Q	T	A	S	K	P	W	D	K	R	D	G	F	V	M	G	E	G	A	G	V	L	M	E	S	L	E	H	A	M	K	K	G	A	P	I	A	E	Y	L	G	S	A	V	N	C	D	A	H	H	M	T	D	P	R	-	A	D	G	L	G	V	S	S	C	I	E	R	C							
Ch KAS 1 .pro	CFYAAANH	IR	R	G	E	A	D	M	L	I	A	G	G	T	E	A	A	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	D	D	P	Q	T	A	S	R	P	W	D	K	R	D	G	F	V	M	G	E	G	A	G	V	L	M	E	S	L	E	H	A	M	K	K	G	A	P	I	A	E	Y	L	G	S	A	V	N	C	D	A	H	H	M	T	D	P	R	-	A	D	G	L	G	V	S	S	C	I	E	S	C	
Ch KAS1-1.pro	CFHAAANH	IR	R	G	E	A	D	M	L	I	A	G	G	T	E	A	A	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	D	D	P	Q	T	A	S	R	P	W	D	K	R	D	G	F	V	M	G	E	G	A	G	V	L	M	E	S	L	E	H	A	M	K	K	G	A	P	I	A	E	Y	L	G	S	A	V	N	C	D	A	H	H	M	T	D	P	R	-	A	D	G	L	G	V	S	S	C	I	E	S	S	
Cpu KAS 1.PRO	CFYAAANH	IR	R	G	E	A	D	M	L	I	A	G	G	T	E	A	A	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	D	D	P	Q	T	A	S	R	P	W	D	K	R	D	G	F	V	M	G	E	G	A	G	V	L	M	E	S	L	E	H	A	M	K	K	G	A	P	I	A	E	Y	L	G	S	A	V	N	C	D	A	H	H	M	T	D	P	R	-	A	D	G	L	G	V	S	S	C	I	E	S	S	
cpuKAS1-1.PRO	CFHAAANH	IR	R	G	E	A	D	M	L	I	A	G	G	T	E	A	A	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	D	D	P	Q	T	A	S	R	P	W	D	K	R	D	G	F	V	M	G	E	G	A	G	V	L	M	E	S	L	E	H	A	M	K	K	G	A	P	I	A	E	Y	L	G	S	A	V	N	C	D	A	H	H	M	T	D	P	R	-	A	D	G	L	G	V	S	S	C	I	E	S	S	
Hv Kas12.pro	CFYAAANH	IR	R	G	E	A	D	I	V	A	G	G	T	E	A	A	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	D	D	P	I	T	A	C	R	P	W	D	K	E	R	D	G	F	V	M	G	E	G	A	G	V	L	M	E	S	L	E	H	A	M	K	K	R	D	A	P	I	A	E	Y	L	G	S	A	V	N	C	D	A	H	H	M	T	D	P	R	-	A	D	G	L	G	V	S	S	C	I	T	M	S
ReKas50.pro	CFYAAANH	IR	R	G	E	A	D	M	L	I	A	G	G	T	E	A	A	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	D	D	P	Q	T	A	S	K	P	W	D	K	R	D	G	F	V	M	G	E	G	A	G	V	L	M	E	S	L	E	H	A	M	K	K	G	A	P	I	A	E	Y	L	G	S	A	V	N	C	D	A	H	H	M	T	D	P	R	-	A	D	G	L	G	V	S	S	C	I	E	R	S	
Cc Kas.pro	CFYASANH	IR	R	G	E	A	D	I	M	V	A	G	T	D	A	F	I	S	A	I	G	V	G	S	F	L	I	A	C	R	A	L	S	Q	R	-	N	D	E	Y	E	K	A	S	R	P	W	D	R	N	R	D	G	F	V	I	G	B	S	S	V	L	M	E	N	L	E	H	A	L	K	K	G	A	P	I	A	E	Y	L	G	S	A	I	T	C	D	A	H	H	I	T	D	P	R	-	A	D	G	L	G	V	S	S	C	I	V	M	S
Ch KAS IV-1.pro	CILNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	A	D	P	T	K	A	S	R	P	W	D	S	N	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
Ch KASIV.pro	CILNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	N	D	P	T	K	A	S	R	P	W	D	S	N	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
Cpu KASIV.pro	CIMNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	S	D	P	T	K	A	S	R	P	W	D	S	N	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
Cw KASA-1.pro	CILNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	S	D	P	T	K	A	S	R	P	W	D	S	N	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
Cw Kasa-2.pro	CILNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	N	D	P	T	K	A	S	R	P	W	D	S	N	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
Hv KasORF22 (KAS	ILNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	S	D	P	T	K	A	S	R	P	W	D	M	D	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
Hv KasORF25 (KAS	ILNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	S	D	P	T	K	A	S	R	P	W	D	M	D	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
ReKas46.pro	CILNAANH	IR	R	G	E	A	D	I	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	S	D	P	T	K	A	S	R	P	W	D	M	D	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A	
Ce.KAS.PRO	CILNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	S	D	P	T	K	A	S	R	P	W	D	M	D	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
CEM.pro	CILNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	S	D	P	T	K	A	S	R	P	W	D	M	D	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
Ec KAS II.pro	CILNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	S	D	P	T	K	A	S	R	P	W	D	M	D	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
Ec KasI.pro	CILNAANH	IR	R	G	E	A	D	M	L	C	G	S	D	A	V	I	P	I	G	L	G	S	F	V	A	C	R	A	L	S	Q	R	-	N	S	D	P	T	K	A	S	R	P	W	D	M	D	R	D	G	F	V	M	G	B	S	A	G	V	L	L	E	E	L	E	H	A	K	K	R	G	A	T	I	A	E	F	L	G	S	S	F	T	C	D	A	Y	H	M	T	E	P	H	-	P	B	3	A	G	V	I	L	C	I	E	K	A		
M.tub. KasA.pro	CILNAVE	Q	I	L	G	K	Q	I	V	F	A	G	G	E	E	L	C	W	E	M	A	-	C	E	F	D	A	M	G	A	L	S	T	R	K	N	D	I	P	E	K	A	S	T	R	P	E	R	A	S	R	P	P	F	D	R	D	G	F	V	P	G	B	S	A	G	A	L	M	A	N	A																																					
M.tub. KasB.PRO	AIHAWR	Q	I	V	M	G	D																																																																																																						

370	380	390	400	410	420	430	440	450	460	470	480
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At	KAS1.pro	LEDAGVSP	EEVNVY	INAHAT	ST	LAGDL	AE	INA	IKKVF	---KSTS-GIK	INATK	SM	GH	CL	GA	AG	GLE	A	IAT	V	KA	INT	GW	LH	PS	IN	Q	NP	---	E	Q	AV	D	F	D	T	---	V	NEK	---	411						
Br	Kas 50.pro	LEDAGVSP	EEVNVY	INAHAT	ST	LAGDL	AE	INA	IKKVF	---KSTS-GIK	INATK	SM	GH	CL	GA	AG	GLE	A	IAT	V	KA	INT	GW	LH	PS	IN	Q	NP	---	E	P	AV	D	F	D	T	---	V	ANEK	---	409						
Ch	KAS 1 .pro	LEDAGVSP	EEVNVY	INAHAT	ST	LAGDL	AE	INA	IKKVF	---KNTK-DIK	INATK	SM	GH	CL	GA	AG	GLE	A	IAT	IK	INT	GW	LH	PS	IN	Q	NP	---	E	P	S	V	E	F	D	T	---	V	ANK	---	330						
Ch	KAS1-1.pro	LEDAGVSP	EEVNVY	INAHAT	ST	LAGDL	AE	INA	IKKVF	---KNTK-EIT	INATK	SM	GH	CL	GA	AG	GLE	A	IAT	IK	INT	GW	LH	PS	IN	Q	NP	---	E	P	S	V	E	F	D	T	---	V	ANK	---	421						
Cpu	KAS 1 .PRO	LEDAGVSP	EEVNVY	INAHAT	ST	LAGDL	AE	INA	IKKVF	---KNTK-DIK	INATK	SM	GH	CL	GA	AG	GLE	A	IAT	IK	INT	GW	LH	PS	IN	Q	NP	---	E	P	S	V	E	F	D	T	---	V	ANK	---	410						
cpu	KAS1 1 .PK0	LEDAGVSP	EEVNVY	INAHAT	ST	LAGDL	AE	INA	IKKVF	---KNTK-EIK	INATK	SM	GH	CL	GA	AG	GLE	A	IAT	IK	INT	GW	LH	PS	IN	Q	NP	---	E	P	S	V	D	F	N	T	---	V	ANK	---	408						
Hv	Kas12.pro	LKJAGVAP	EEVNVY	INAHAT	ST	LAGDL	AE	INA	IKQVF	---KNPS-EIK	INSTK	SM	GH	CL	GA	AG	GLE	A	IAT	IK	INT	GW	LH	PT	IN	Q	NP	---	E	P	S	V	D	F	D	T	---	V	ANEK	---	407						
Re	Kas10.pro	IJFATVSP	EEVNVY	INAHAT	ST	LAGDL	AE	INA	IKKVF	---KNTS-DIK	INATK	SM	GH	CL	GA	AG	GLE	A	IAT	IK	INT	GW	LH	PT	IN	Q	NP	---	E	P	S	V	E	F	D	T	---	V	ANK	---	409						
Cc	Kas.pro	LVDAGVSP	EEVNVY	INAHAT	ST	LAGDL	AE	INA	IKKVF	---KNTS-EIK	MNCTK	SM	GH	CL	GA	AG	GLE	A	IAT	IK	INT	GW	LH	PT	IN	Q	NP	---	E	P	Q	V	T	I	D	T	---	V	PNVK	---	400						
Ch	KAS1V 1.pro	LAQSGVSR	EDVNVY	INAHAT	ST	PAGDI	KEYQ	AL	IHCF	---GQNN-EL	KVNSTK	SM	GH	LL	GA	AG	VE	AV	V	V	Q	A	IR	T	GW	I	HP	IN	LE	N	P	---	D	E	G	V	D	T	K	L	L	V	G	P	K	---	401
Ch	KAS1V .pro	LAQSGVSR	EDVNVY	INAHAT	ST	PAGDI	KEYQ	AL	IHCF	---GQNS-EL	RVNSTK	SM	GH	LL	GA	AG	VE	AV	V	V	Q	A	IR	T	GW	I	HP	IN	LE	N	P	---	D	E	G	V	D	T	K	L	L	V	G	P	K	---	401
Cpu	KAS1V .pro	LAQSGVSR	EDVNVY	INAHAT	ST	PAGDI	KEYQ	AL	IHCF	---GQNR-EL	KVNSTK	SM	GH	LL	GA	AG	VE	AV	V	V	Q	A	IR	T	GW	I	HP	IN	LE	N	P	---	D	E	G	V	D	T	K	L	L	V	G	P	K	---	401
Cw	KASA 1 .pro	LAQAGVSK	EDVNVY	INAHAT	ST	SAGDI	KEYQ	AL	IARCF	---GQNS-EL	RVNSTK	SM	GH	LL	GA	AG	VE	AV	V	V	Q	A	IR	T	GW	I	HP	IN	LE	N	P	---	D	K	A	V	D	A	K	L	L	V	G	P	K	---	401
Cw	KASA 2 .pro	LAQSGVSK	EDVNVY	INAHAT	ST	PAGDI	KEYQ	AL	AKIF	---GQNS-EL	RVNSTK	SM	GH	LL	GA	AG	VE	AV	V	V	Q	A	IR	T	GW	I	HP	IN	LE	N	P	---	D	K	G	V	D	A	K	L	L	V	G	P	K	---	401
Hv	KasORF22 (KAS 1)	LADSGVARE	EEIN	VNAHAT	ST	SGDL	KEYE	AL	IVRCF	---GQNP-Q	LRVNSTK	SM	TH	LL	GA	AG	VE	A	IAT	F	M	N	D	D	V	L	P	AN	RL	E	---	E															

